CLAIMS

1. A platen for improving performance in chemical mechanical polishing (CMP) applications, comprising:

a plurality of piezoelectric elements disposed above the platen, wherein the plurality of piezoelectric elements is capable of exerting force on a polishing belt.

2. A platen as recited in claim 1, wherein an electric field is used to activate the piezoelectric elements.

3. A platen as recited in claim 1, wherein the plurality of piezoelectric elements comprises piezoelectric elements of varying dimensions.

4. A platen as recited in claim 3, wherein piezoelectric elements near an edge of the platen are smaller than piezoelectric elements near the center of the platen.

5. A platen as recited in claim 1, wherein each piezoelectric element of the plurality of piezoelectric elements can be individually activated to exert force against the polishing belt.

6. A platen as recited in claim 5, wherein each piezoelectric element of the plurality of piezoelectric elements can be individually activated to adjust force resistance against the polishing belt.

7. A platen as recited in claim 1, wherein a sacrificial material disposed above the platen is used to reduce wear on the platen.

8. A system for improving performance in chemical mechanical polishing (CMP) applications, comprising:

a wafer head capable of carrying a wafer;

a polishing belt disposed below the wafer head; and

a platen having a piezoelectric elements positioned below the polishing belt, wherein the piezoelectric elements are capable of exerting force on the polishing belt.

9. A system as recited in claim 8, wherein an electric field is used to activate the piezoelectric elements.

10. A system as recited in claim 8, wherein the piezoelectric elements are of varying dimensions.

11. A system as recited in claim 10, wherein piezoelectric elements near an edge of the platen are smaller than piezoelectric elements near the center of the platen.

12. A system as recited in claim 8, wherein each piezoelectric element can be individually activated to exert force against the polishing belt.

13. A system as recited in claim 12, wherein each piezoelectric element can be individually activated to adjust force resistance against the polishing belt.

14. A system as recited in claim 8, wherein the force exerted against the polishing belt is transferred to the wafer to provide zonal control during a CMP process.

15. A system as recited in claim 1, further comprising a sacrificial material disposed above the platen, the sacrificial material being used to reduce wear on the platen.

16. A system as recited in claim 15, wherein the sacrificial material is slowly rolled across the platen during a CMP process.

17. A method for improving performance in chemical mechanical polishing (CMP) applications, comprising the operations of:

providing a platen having piezoelectric elements positioned below a polishing belt disposed above the platen, wherein the piezoelectric elements are capable of exerting force on the polishing belt.

applying a wafer to the polishing belt; and

stabilizing the polishing belt utilizing the platen, wherein the piezoelectric elements apply specific forces to the polishing belt.

18. A method as recited in claim 17, further advancing a sacrificial material across the platen.

19. A method as recited in claim 17, wherein the piezoelectric elements are of varying dimensions.

20. A method as recited in claim 19, wherein piezoelectric elements near an edge of the platen are smaller than piezoelectric elements near the center of the platen.

21. A platen for improving performance in chemical mechanical polishing (CMP) applications, comprising:

a plurality of piezoelectric elements disposed above the platen, wherein the plurality of piezoelectric elements is capable of exerting force on a polishing belt,

wherein each piezoelectric element of the plurality of piezoelectric elements can be individually activated to exert force against the polishing belt, and wherein each piezoelectric element of the plurality of piezoelectric elements can be individually activated to adjust force resistance against the polishing belt.

22. A platen as recited in claim 21, wherein the plurality of piezoelectric elements comprises piezoelectric elements of varying dimensions.

23. A platen as recited in claim 22, wherein piezoelectric elements near an edge of the platen are smaller than piezoelectric elements near the center of the platen.

24. A system for improving performance in chemical mechanical polishing (CMP) applications, comprising:

a wafer head capable of carrying a wafer;

a polishing belt disposed below the wafer head;

a platen having a piezoelectric elements positioned below the polishing belt, wherein the piezoelectric elements are capable of exerting force on the polishing belt, wherein each piezoelectric element can be individually activated to exert force against the polishing belt, and wherein each piezoelectric element can be individually activated to adjust force resistance against the polishing belt; and

a sacrificial material disposed above the platen, the sacrificial material being used to reduce wear on the platen, wherein the sacrificial material is slowly rolled across the platen during a CMP process.

25. A system as recited in claim 24, wherein the piezoelectric elements are of varying dimensions.

26. A system as recited in claim 25, wherein piezoelectric elements near an edge of the platen are smaller than piezoelectric elements near the center of the platen.

27. A method for improving performance in chemical mechanical polishing (CMP) applications, comprising the operations of:

providing a platen having piezoelectric elements of varying dimensions positioned below a polishing belt disposed above the platen, wherein the piezoelectric elements are capable of exerting force on the polishing belt.

applying a wafer to the polishing belt;

stabilizing the polishing belt utilizing the platen, wherein the piezoelectric elements apply specific forces to the polishing belt; and

advancing a sacrificial material across the platen.

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28. A method as recited in claim 27, wherein piezoelectric elements near an edge of the platen are smaller than piezoelectric elements near the center of the platen.